

Technical Data Sheet

Type: Pearlstick™ 5714 TPU is a Polyether-Type Thermoplastic Polyurethane (TPU).

Features: Low Temperature Flexibility, Excellent Abrasion, Fungal, and Chemical Resistance and Hydrolytic Stability. Adhesives can be applied from solution or extruded as a melt coating. The resin is lightly dusted with calcium stearate and contains UV stabilizer.

Uses: Various adhesive and fabric coating, magnetic media binder and cast films for lamination.

Physical Properties	Value (Metric)	Units	Test Method
Specific Gravity	1.11		ASTM D-792
Shore Hardness	80A	Shore A	ASTM D-2240
Mechanical			
Tensile Strength	4500 (31.0)	psi (MPa)	ASTM D-412/D-638
Modulus			ASTM D-412/D-638
- 100% Elongation	690 (4.8)	psi (MPa)	
- 300% Elongation	1300 (9.0)	psi (MPa)	
Ultimate Elongation	530	%	ASTM D-412/D-638
Brookfield Viscosity			RVT Spindle #2, 20 RPM, 23°C
- 15% T.S. in THF	900	cps	
- 15% T.S. in Cyclohexanone	3700	cps	

- ¹Prior to testing samples were conditioned at 23°C for 48 hours.
- Based on extruded sheet (30 mils) or Injection molded plaques (125 mils).
- Listed values are "typical (average) values" and should / cannot be applied for specification purposes.

Supply Form and Standard Packaging

Pearlstick™ 5714 TPU is supplied in pellet form and packaged in 1000 lb boxes.

Properties	Value	Units*	Test Method
Thermal			
Glass Transition Temperature	-36(-38)	°F(°C)	DSC**
Vicat Softening Point	160 (71)	°F(°C)	ASTM D-1525
Adhesive			
Ring and Ball Softening Point	345 (174)	°F(°C)	ASTM E-28-92
Melt Viscosity @ 400°F (204°C)	72000	cps	ASTM D-1084-88
Gradient Bar Tack Temperature	261 (127)	°F(°C)	
Open Time	<5	sec	ASTM D-4497-94
T-peel, Aluminum Foil	2.8 (0.5)	lb/in (kN/m)	ASTM D-1876-72
T-peel, Mylar Film	8.6 (1.5)	lb/in (kN/m)	ASTM D-1876-72

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*These are typical values and should not be used for establishing specifications.
Contact your representative for availability and commercialization status.
**Differential Scanning Calorimeter, 10°C/min, temperature program, from the second heat.

STORAGE

Pearlstick™ 5714 must be stored in a cool (15–25°C) and environment prior to being processed. Standard practice of consuming resin on first-in first-out basis should be employed.

For further information refer to Lubrizol Advanced Materials processing guides.

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